

**David Mauger, Ph.D.**  
**Professor, Department of Public Health Sciences**  
**Division Chief, Biostatistics**  
**The Pennsylvania State University**

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**Education**

The University of Michigan, Ann Arbor, Michigan  
B.S., Biology and Psychology, 1989  
M.S., Biostatistics, 1991  
Ph.D., Biostatistics, 1995

**Professional Experience**

1995-2001    Assistant Professor, Department of Public Health Sciences  
                 Penn State University College of Medicine

2002-2008    Associate Professor, Department of Public Health Sciences  
                 Penn State University College of Medicine

2008-         Professor, Department of Public Health Sciences  
                 Division Chief, Biostatistics  
                 Penn State University College of Medicine

**Professional memberships**

American Statistical Association  
Biometrics Society

## **RESEARCH ACCOMPLISHMENTS**

### **Peer-reviewed Publications**

1. Mauger DT, Brown MB, Kushler RH (Feb 1995). A comparison of methods that characterize pulses in a time series. *Statistics in Medicine* 14, 311-325.
2. Evans NP, Dahl GE, Mauger DT, Karsch FJ (Apr 1995). Estradiol induces both qualitative and quantitative changes in the pattern of gonadotropin-releasing hormone secretion during the presurge period in the ewe. *Endocrinology* 136, 1603-1609.
3. Padmanabhan V, Evans NP, Dahl GE, McFadden KL, Mauger DT, Karsch FJ (Sep 1995). Evidence for short or ultrashort loop negative feedback of gonadotropin-releasing hormone secretion. *Neuroendocrinology* 62, 248-258.
4. Evans NP, Dahl GE, Mauger DT, Padmanabhan V, Thrun LA, Karsch FJ (Dec 1995). Does estradiol induce the preovulatory GnRH surge in the ewe by inducing a progressive change in the mode of operation of the GnRH neurosecretory system? *Endocrinology* 136, 5511-5519.
5. Manni AM, Buckwalter E, Etindi R, Kunselman SJ, Rossini AJ, Mauger DT, Dabbs D (Sep 1996). Introduction of a less aggressive breast cancer phenotype by PKC- $\alpha$  and - $\beta$  overexpression. *Cell Growth and Differentiation* 7, 1187-1198.
6. Manni AM, Mauger DT, Gimotty P, Badger B (Nov 1996). Prognostic influence on survival of increased ornithine decarboxylase activity in human breast cancer. *Clinical Cancer Research* 2, 1901-1906.
7. Kasales CJ, Mauger DT, Sefczek RJ, Mahraj R, Meilstrup JW, Van Hook D, Patrone SVM, Sefczek DM, Egli KD, Wise SW, Westacott S, Hopper KD (Jan 1997). Multiplanar image reconstruction and 3D imaging using a musculoskeletal phantom: conventional versus helical CT. *Journal of Computer Assisted Tomography* 21, 162-169.
8. Manni AM, Wechter R, Gilmour S, Verdame, MF, Mauger DT, Demers LM (Jan 1997). Ornithine Decarboxylase Overexpression Stimulates Mitogen-Activated Protein Kinase and Anchorage-Independent Growth of Human Breast Epithelial Cells. *International Journal of Cancer* 70, 175-182.
9. Padmanabhan V, McFadden KL, Mauger DT, Karsch FJ, Midgley AR (Jan 1997). Neuroendocrine control of FSH secretion: I. Direct evidence for separate episodic and tonic components of FSH secretion. *Endocrinology* 138, 424-432.
10. Midgley AR, McFadden KL, Ghazzi M, Karsch FJ, Brown MB, Mauger DT,

Padmanabhan V (Apr 1997). Nonclassical secretory dynamics of LH revealed by hypothalamo-hypophyseal portal sampling of sheep. *Endocrine* 6(2), 133-143.

11. Hudome S, Palmer C, Roberts RL, Mauger DT, Housman C, Towfighi J (May 1997). The role of neutrophils in the production of hypoxic-ischemic brain injury in the neonatal rat. *Pediatric Research* 41, 607-616.
12. Towfighi J, Mauger DT, Vannucci RC, Vannucci SJ (Jun 1997). Influence of age on the cerebral lesions in an immature rat model of cerebral hypoxia-ischemia: a light microscopic study. *Developmental Brain Research* 100, 149-160.
13. Mauger DT, Chinchilli VM (Nov 1997). In-vitro/in-vivo relationships for oral extended-release drug products. *Journal of Biopharmaceutical Statistics* 7(4), 565-578.
14. Freiberg A, Mauger DT (Jan 1998). Efficacy, safety, and dose response of intravenous Anti-D immune globulin (WinRho SDF) for the treatment of idiopathic thrombocytopenic purpura in children. *Seminars in Hematology* 35(1), Supplement 1, 22-37.
15. Manni AM, Wechter R, Verderame MF, Mauger DT (May 1998). Cooperativity between the polyamine pathway and HER-2neu in transformation of human mammary epithelial cells in culture: role of the MAPK pathway. *International Journal of Cancer* 76, 563-570.
16. Towfighi J, Mauger DT (Aug 1998). Temporal evolution of neuronal changes in cerebral hypoxia-ischemia in developing rats: a quantitative light microscopic study. *Developmental Brain Research* 109(2), 169-177.
17. Vannucci RC, Conner JR, Mauger DT, Palmer C, Smith MB, Towfighi J, Vannucci SJ (Jan 1999). A rat model of perinatal hypoxic-ischemic brain damage. *Journal of Neuroscience Research* 55, 158-163.
18. Wise S, Stagg PL, Szucs R, Gay S, Mauger DT, Hartman D (Jan 1999). Assessment of resident knowledge: subjective assessment vs performance on the ACR In-Training examination. *Academic Radiology* 6, 66-71.
19. Iocono JA, Cilley RE, Mauger DT, Krummel TM, Dillon PW (Feb 1999). Postnatal pulmonary hypertension after repair of congenital diaphragmatic hernia: predicting risk and outcome. *Journal of Pediatric Surgery* 34(2), 349-353.
20. Towfighi J, Housman C, Mauger DT, Vannucci RC (Mar 1999). Effect of seizures on cerebral hypoxic-ischemic lesions in immature rats. *Brain Research* 113, 83-95.
21. Good C, Tulchinsky M, Mauger DT, Demers LM, Legro RS (Jul 1999). Bone mineral density and body composition in lean women with polycystic ovary syndrome.

*Fertility and Sterility* 72(1), 21-25.

22. O'Shaughnessy JA, Demers LM, Jones SE, Arseneau J, Khandelwal P, George T, Gersh R, Mauger DT, Manni A (Nov 1999).  $\alpha$ -Difluoromethylornithine as treatment for metastatic breast cancer patients. *Clinical Cancer Research* 5(11), 3438-3444.
23. Hopper KD, Iyriboz AT, Wise SW, Neuman JD, Mauger DT, Kasales CJ (Feb 2000). Mucosal detail at CT virtual reality: surface versus volumetric rendering. *Radiology* 214(2), 517-522.
24. Mauger DT, Chinchilli VM (Apr 2000). Profile similarity in bioequivalence trials. *Sankhya: The Indian Journal of Statistics* 62(B1), 149-161.
25. Green MJ, Farber NJ, Ubel PA, Mauger DT, Aboff BM, Sosman JM, Arnold RM (Aug 2000). Lying to each other: When internal medicine residents use deception with their colleagues. *Archives of Internal Medicine* 160, 2317-2323.
26. Wise SW, Mauger DT, Matthews AE, Hartman DS (Sep 2000). Impact of the armed forces institute of radiologic pathology course on radiology resident performance on the ACR in-training and ABR written examinations. *Academic Radiology* 7(9), 693-699.
27. Mauger DT, Chinchilli VM (Oct 2000). An alternative index for assessing profile similarity in bioequivalence trials. *Statistics in Medicine* 19, 2855-2866.
28. Liu Y, Hopper KD, Mauger DT, Addis KA (Nov 2000). CT angiographic measurement of the carotid artery: Optimizing visualization by manipulating window and level settings and contrast material attenuation. *Radiology* 217(2), 494-500.
29. Lancaster KJ, Smiciklas-Wright H, Kumanyika SK, Mitchell DC, Mauger D, Palmer JR (Dec 2000). Food diary response rates in a sample of African-American women: respondent characteristics and nutrient intake. *Journal of the American Dietetic Association* 100(12), 1532-1535.
30. Green MJ, Fong S, Mauger DT, Ubel PA (Jan 2001). Rationing HIV medications: what do patients and the public think about allocation policies. *Journal of Acquired Immune Deficiency Syndromes* 26, 56-62.
31. Simmons Z, Epstein DK, Borg B, Mauger DT, Kothari MJ, Shefner JM (Apr 2001). Reproducibility of Motor Unit Number Estimation in Individual Subjects. *Muscle and Nerve* 24, 467-473.
32. Wise SW, Labuski MR, Kasales CJ, Blebea JS, Meilstrup JW, Holley GP, LaRusso SA, Holliman J, Ruggiero FM, Mauger DT (Apr 2001). Comparative assessment of CT and sonographic techniques for appendiceal imaging. *American Journal of Radiology* 176, 933-941.

33. Manni AM, Astrow SH, Gammon S, Thompson J, Mauger DT, Washington S (May 2001). Immunohistochemical detection of ornithine-decarboxylase in primary and metastatic human breast cancer specimens. *Breast Cancer Research and Treatment* 67, 147-156.
34. Manni AM, Trout DA, Verdame MF, Washington S, Mauger DT, Demers, LM (Jul 2001). Effect of  $\alpha$ -difluoromethyl-ornithine on the expression and function of the epidermal growth factor receptor in human breast epithelial cells in culture. *Breast Cancer Research and Treatment* 68(2), 139-146.
35. Manni AM, Fischer S, Franks M, Washington, S, DeArment R, Griffith J, Demers LM, Verdame MF, Leiby B, Mauger DT (Aug 2001). S-adenosylmethionine decarboxylase overexpression reduces invasiveness and tumorigenicity in nude mice of MCF-7 breast cancer cells. *International Journal of Oncology* 19, 317-323.
36. Green MJ, Biesecker BB, McInerney AM, Mauger DT, Fost N (Sep 2001). An interactive computer program can effectively educate patients about genetic testing for breast cancer susceptibility. *American Journal of Medical Genetics* 103, 16-23.
37. Kasales CJ, Coulson CC, Mauger DT, Chertoff JC, Matthews A (Oct 2001). Training in obstetric sonography for radiology residents and fellows in the United States. *American Journal of Radiology* 177, 763-767.
38. Addis KA, Hopper KD, Iyriboz TA, Liu Y, Wise SW, Kasales CJ, Blebea JS Mauger DT (Nov 2001). CT Angiography: in vitro comparison of five reconstruction methods. *American Journal of Roentgenology* 177(5), 1171-1176.
39. Hopper KD, Lucas TA, Gleeson K, Bascom R, Stauffer JL, Mauger DT, Mahraj R (Nov 2001). Transbronchial biopsy with virtual CT bronchoscopy and nodal highlighting. *Radiology* 221(2), 531-536.
40. Mauger EA, Mauger DT, Fish JE, Chinchilli VM, Israel E (Dec 2001). Summarizing Methacholine Challenges in Clinical Research. *Controlled Clinical Trials* 22, 244S-251S.
41. Manni AM, Washington S, Griffith JW, Verdame MF, Mauger DT, Demers LM, Samant RS, Welch DR (Jan 2002). Influence of polyamines on in vivo and in vitro features of aggressive and metastatic behavior by human breast cancer cells. *Clinical and Experimental Metastasis* 19, 95-102.
42. Hopper KD, Strollo D, Mauger DT (Feb 2002). Comparison of electron-beam and ungated helical CT in detecting coronary artery calcification by using a working heart phantom and artificial coronary arteries. *Radiology* 222, 474-482.
43. Mudgil SP, Wise SW, Hopper KD, Kasales CJ, Mauger DT, Fornadley JA (Feb

2002). Correlation between presumed sinusitis-induced pain and paranasal sinus computed tomographic findings. *Annals of Allergy, Asthma, & Immunology* 88(2), 223-226.

44. Shevde LA, Samant RS, Goldberg SF, Sikaneta T, Alessandrini A, Donahue HJ, Mauger DT, Welch DR (Feb 2002). Suppression of human melanoma metastasis by the metastasis suppressor gene, BRMS1. *Experimental Cell Research* 273, 229-239.
45. Kumanyika SK, Mauger DT, Mitchell DC, Phillips B, Smicklas-Wright H, Palmer JR (Feb 2003). Relative validity of food frequency questionnaire nutrient estimates in the Black Women's Health Study. *Annals of Epidemiology* 13(2), 111-118.
46. Manni AM, Washington S, Craig L, Cloud M, Griffith JW, Verdame MF, Texter LJ, Mauger DT, Demers LM, Harms J, Welch DR (2003). Effects of  $\alpha$ -diflouromethylornithine on local recurrence and pulmonary metastasis from MDA-MB-435 breast cancer xenografts in nude mice. *Clinical and Experimental Metastasis* 20(4), 231-235.
47. Padmanabhan V, Brown MB, Dahl GE, Evans NP, Karsch FJ, Mauger DT, Neill JD, Van Cleef J (Apr 2003). Neuroendocrine control of follicle-stimulating hormone (FSH) secretion: III. Is there a gonadotropin-releasing hormone-independent component of episodic FSH secretion in ovariectomized and luteal phase ewes? *Endocrinology* 144(40), 1380-1392.
48. Townsend B, Marks JG, Mauger DT, Miller JJ (Oct 2003). Patients' attitudes toward medical student participation in a dermatology clinic. *Journal of the American Academy of Dermatology* 49(4), 709-711.
49. Pelkman CL, Fishell VK, Maddox DH, Pearson TA, Mauger DT, Kris-Etherton PM (Feb 2004). Effects of moderate-fat (from monounsaturated fat) and low-fat weight-loss diets on the serum lipid profile in overweight and obese men and women. *American Journal of Clinical Nutrition* 79(2), 204-212.
50. Dillon PW, Cilley RE, Mauger D, Zachary C, Meier A (Mar 2004). The relationship of pulmonary artery pressure and survival in congenital diaphragmatic hernia. *Journal of Pediatric Surgery* 39(3), 307-12.
51. Smith JP, Conter RL, Bingaman SI, Harvey HA, Mauger DT, Ahmad M, Demers LM, Stanley WB, McLaughlin PJ, Zagon IS (Mar 2004). Treatment of advanced pancreatic cancer with opioid growth factor: phase I. *Anti-Cancer Drugs* 15(3), 203-9.
52. Guilbert TW, Morgan WJ, Krawiec M, Lemanske RF Jr, Sorkness C, Szeffler SJ, Larsen G, Spahn JD, Zeiger RS, Heldt G, Strunk RC, Bacharier LB, Bloomberg GR, Chinchilli VM, Boehmer SJ, Mauger EA, Mauger DT, Taussig LM, Martinez FD (Jun 2004). The Prevention of Early Asthma in Kids study: design, rationale and methods

for the Childhood Asthma Research and Education network. *Controlled Clinical Trials* 25(3),286-310.

53. Smith JP, Riley TR, Bingaman S, Mauger DT (Jun 2004). Amantadine Therapy for Chronic Hepatitis C: A Dose Escalation Study. *American Journal of Gastroenterology* 99(6), 1099-104.
54. Green MJ, Peterson SK, Baker MW, Harper GR, Friedman LC, Rubinstein WS, Mauger DT (Jul 2004). Effect of a computer-based decision aid on knowledge, perceptions, and intentions about genetic testing for breast cancer susceptibility: a randomized controlled trial. *JAMA* 292(4), 442-52.
55. Bacharier LB, Strunk RC, Mauger D, White D, Lemanske RF Jr, Sorkness CA (Aug 2004). Classifying asthma severity in children: mismatch between symptoms, medication use, and lung function. *American Journal of Respiratory & Critical Care Medicine* 170(4), 426-32.
56. Anderson BE, Marks JG Jr, Mauger DT (Sep 2004). Efficacy of tacrolimus ointment in the prevention and treatment of contact dermatitis. *Dermatitis* 15(3):158-9.
57. Miller CJ, Cheung M, Sharma A, Clarke L, Helm K, Mauger D, Robertson GP (Nov 2004). Method of mutation analysis may contribute to discrepancies in reports of (V599E) BRAF mutation frequencies in melanocytic neoplasms. *Journal of Investigative Dermatology* 123(5), 990-2.
58. Guilbert TW, Morgan WJ, Zeiger RS, Bacharier LB, Boehmer SJ, Krawiec M, Larsen G, Lemanske RF, Liu A, Mauger DT, Sorkness C, Szeffler SJ, Strunk RC, Taussig LM, Martinez FD (Dec 2004). Atopic characteristics of children with recurrent wheezing at high risk for the development of childhood asthma. *Journal of Allergy & Clinical Immunology* 114(6),1282-7.
59. Burdo TH, Gartner S, Mauger D, Wigdahl B (2004). Region-specific distribution of human immunodeficiency virus type 1 long terminal repeats containing specific configurations of CCAAT/enhancer-binding protein site II in brains derived from demented and nondemented patients. *Journal of Neurovirology* 10 Suppl 1, 7-14.
60. Hu X, Washington S, Verderame MF, Demers LM, Mauger D, Manni A. (Dec 2004). Biological activity of the S-adenosylmethionine decarboxylase inhibitor SAM486A in human breast cancer cells in vitro and in vivo. *International Journal of Oncology* 25(6):1831-8.
61. Nonnemacher MR, Irish BP, Liu Y, Mauger D, Wigdahl B (Dec 2004). Specific sequence configurations of HIV-1 LTR G/C box array result in altered recruitment of Sp isoforms and correlate with disease progression. *Journal of Neuroimmunology* 157(1-2):39-47.

62. Manni AM, Washington S, Mauger DT, Hackett DA, Verdame MF (Dec 2004). Cellular mechanisms mediating the anti-invasive properties of the ornithine decarboxylase inhibitor  $\alpha$ -difluoromethylornithine (DFMO) in human breast cancer cells. *Clinical and Experimental Metastasis* 21, 461-467.
63. Basu A, Lazovic J, Krady JK, Mauger DT, Rothstein RP, Smith MB, Levison SW (Jan 2005). Interleukin-1 and the interleukin-1 type 1 receptor are essential for the progressive neurodegeneration that ensues subsequent to a mild hypoxic/ischemic injury. *Journal of Cerebral Blood Flow & Metabolism* 25(1):17-29.
64. Cappel M, Mauger D, Thiboutot D (Mar 2005). Correlation Between Serum Levels of Insulin-like Growth Factor 1, Dehydroepiandrosterone Sulfate, and Dihydrotestosterone and Acne Lesion Counts in Adult Women. *Archives of Dermatology* 141: 333-338.
65. Jones SM, Quarry JL, Caldwell-mcMillan M, Mauger DT, Gabbay RA (Mar 2005). Optimal Insulin Pump Dosing and Postprandial Glycemia Following a Pizza Meal Using the Continuous Glucose Monitoring System. *Diabetes Technology and Therapeutics* 7(2): 233-240.
66. Green MJ, Peterson SK, Wagner Baker M, Friedman LC, Harper GR, Rubinstein WS, Peters JA, Mauger DT (Apr 2005). Use of an educational computer program before genetic counseling for breast cancer susceptibility: Effects on duration and content of counseling sessions. *Genetics in Medicine* 7(4): 221-229.
67. Clarke LE, Bayerl MG, Bruggeman RD, Mauger D, Ioffreda MD, Abou-Ellella A, Helm KF (Apr 2005). Death receptor apoptosis signaling mediated by FADD in CD30-positive lymphoproliferative disorders involving the skin. *American Journal of Surgical Pathology* 29(4):452-9.
68. Chinchilli VM, Phillips BR, Mauger DT, Szeffler SJ (2005). A general class of correlation coefficients for the 2x2 crossover design. *Biometrical Journal* 47(5), 1-10.
69. Leong SL, Gingrich D, Lewis PR, Mauger DT, George JH (Jun 2005). Enhancing doctor-patient communication using email: a pilot study. *Journal of the American Board of Family Practice* 18(3):180-8, 2005.
70. Ding W, Tang Q, Espina V, Liotta LA, Mauger DT, Mulder KM (Aug 2005). A transforming growth factor-beta receptor-interacting protein frequently mutated in human ovarian cancer. *Cancer Research* 65(15):6526-33.
71. Manni A, Washington S, Hu X, Griffith JW, Bruggeman R, Demers LM, Mauger D, Verderame MF (Sep 2005). Effects of polyamine synthesis inhibitors on primary tumor features and metastatic capacity of human breast cancer cells. *Clinical and Experimental Metastasis* 22: 255-263.

72. Gabbay RA, Lendel I, Saleem TM, Shaeffer G, Adelman AM, Mauger DT, Collins M, Polomano RC (Jan 2006). Nurse case management improves blood pressure, emotional distress and diabetes complication screening. *Diabetes Research and Clinical Practice* 71: 28-35.
73. Guilbert TW, Morgan WJ, Zeiger RS, Mauger DT, Boehmer SJ, Szeffler SJ, Bacharier LB, Lemanske RF, Strunk RC, Allen DB, Bloomberg GR, Heldt G, Krawiec M, Larsen G, Lemanske RF, Liu A, Chinchilli VM, Sorkness CA, Taussig LM, Martinez FD (May 2006). Two Year Inhaled Corticosteroid Treatment on Subsequent Asthma in High-Risk Toddlers. *New England Journal of Medicine*, 354(19): 1985-1997.
74. Trivedi N, Cong Z, Nelson M, Albert A, Rosamilia L, Sivarajah S, Gillilant K, Liu W, Mauger D, Gabbay R, Thiboutot D (2006). Peroxisome proliferator-activated receptors increase human sebum production. *Journal of Investigative Dermatology*, 126(9): 2002-2009.
75. Zagon IS, Klocek MS, Sassani JW, Mauger DT, McLaughlin PJ (2006). Corneal safety of topically applied naltrexone. *Journal of Ocular Pharmacology & Therapeutics*, 22(5):377-87.
76. Smith JP, Stock H, Bingaman S, Mauger D, Rogosnitzky M, Zagon IS (2007). Low-Dose Naltrexone Therapy Improves Active Crohn's Disease. *American Journal of Gastroenterology*, 102:1-9.
77. Sorkness CA, Lemanske RF, Mauger DT, Boehmer SJ, Chinchilli VM, Martinez FD, Strunk RC, Szeffler SJ, Zeiger RS, Bacharier LB, Bloomberg GR, Covar RA, Guilbert TW, Heldt G, Larsen G, Mellon MH, Morgan WJ, Moss MH, Spahn JD, Taussig LM (2007). Long-term comparison of three controller regimens for mild-moderate persistent childhood asthma: The Pediatric Asthma Controller Trial (PACT). *Journal of Allergy and Clinical Immunology*, 119(1): 64-72.
78. Souba WW, Mauger D, Day DV (2007). Does agreement on institutional values and leadership between deans and surgery chairs predict their institutions' performance? *Academic Medicine*, 82(3): 272-280.
79. Vender RL, Mauger D, Walsh S, Alam S, Simmons Z (2007). Respiratory systems abnormalities and clinical milestones for patients with amyotrophic lateral sclerosis with emphasis on survival. *Amyotrophic Lateral Sclerosis*, 8: 36-41.
80. Ahmad R, Cherry RA, Lendel I, Mauger DT, Service SL, Texter LJ, Gabbay RA (2007). Trauma Patients with Diabetes Have Increased Hospital Morbidity When Matched for Age and ISS. *Archives of Surgery*, 142(7): 613-618.
81. Smith JP, Zagon I, Matters G, Harms J, McGovern C, Fitzpatrick L, Stock H,

- Bingaman S, Mauger D, Parikh A, Nilo N (2007). The opioid antagonist, naltrexone improves inflammatory bowel disease. *Immune-Med Dis* 11:54 (suppl 2).
82. Hansen JC, Lim JY, Xu LC, Siedlecki CA, Mauger DT, Donahue HJ (2007). Effect of surface nanoscale topography on elastic modulus of individual osteoblastic cells as determined by atomic force microscopy. *Journal of Biomechanics*, 40(13):2865-71.
  83. Strunk RC, Bacharier LB, Phillips BR, Szefer SJ, Zeiger RS, Chinchilli VM, Martinez FD, Lemanske RF, Taussig LM, Mauger DT, Morgan WJ, Sorkness CA, Paul IM, Guilbert TW, Krawiec M, Covar R, Larsen GL (2008). Azithromycin or Montelukast as Inhaled Corticosteroid-Sparing Agents in Moderate to Severe Childhood Asthma Study. *Journal of Allergy and Clinical Immunology*, submitted
  84. Knuffman JE, Sorkness CA, Lemanske RF, Mauger DT, Boehmer SJ, Martinez FD, Bacharier LB, Strunk RC, Szefer SJ, Zeiger RS, Taussig LM (2008). Phenotypic Predictors of Long-term Response to Inhaled Corticosteroid and Leukotriene Modifier Therapies in Pediatric Asthma. *Pediatrics*, submitted
  85. Covar R, Szefer SJ, Zeiger RS, Sorkness CA, Moss M, Mauger DT, Boehmer SJ, Strunk RC, Martinez FD, Taussig LM (2008). Factors Associated with Asthma Exacerbations During a Long-term Clinical Trial of Controller Medications in Children. *Journal of Allergy and Clinical Immunology*, submitted
  86. Larsen GL, Morgan WJ, Heldt GP, Mauger DT, Boehmer SJ, Chinchilli VM, Lemanske RF, Martinez FD, Strunk RC, Szefer SJ, Zeiger RS, Taussig LM, Bacharier LB, Guilbert TW, Radford S, Sorkness CA. A Comparison of Impulse Oscillometry with Spirometry in a Long-Term Study of Controller Therapy for Pediatric Asthma. *Journal of Allergy and Clinical Immunology*, submitted

## Book Chapters

1. Mauger DT, Chinchilli VM (2000). Methods of establishing in-vitro/in-vivo relationships for modified release drug products. In *Handbook of Statistics, Vol. 18: Bioenvironmental and Public Health Statistics* (Eds., PK Sen and CR Rao), pp. 977-1002. Elsevier Science, Amsterdam.
2. Mauger DT, Kauffman GL (2001). Statistical considerations – statistical issues to be considered in experimental design. In *Surgical Research* (Eds., WW Souba and DW Wilmore). Academic Press, San Diego.
3. Mauger DT, Kauffman GL (2001). Statistical analysis – specific statistical tests, indications for use. In *Surgical Research* (Eds., WW Souba and DW Wilmore). Academic Press, San Diego.

## **Extramural Funding**

### **David Mauger, Principal Investigator:**

NIH-U10 "Pediatric Asthma Network Data Coordinating Center," 2007 – ongoing  
(co-investigator from 2000-2007)

NIH-R03 "Defining Diet-Related Breast Cancer Risks in Black Women," 1996-1998

### **David Mauger, Biostatistics Core Director:**

NIH-M01 "General Clinical Research Center," 1997 - ongoing  
DG Kirch M.D., Principal Investigator

NIH-P01 "Perinatal Hypoxic Ischemic Brain Damage," 1995-2004  
RC Vannucci, M.D., Program Project Director

NIH-P01 "Mitotic Modifiers of Hormone Dependent Breast Cancer," 1996-1997  
AM Manni, M.D., Program Project Director

### **David Mauger, Co-Investigator (5% effort or higher):**

NIH-R01 "Polyamine and Breast Cancer Biology," 2003 - ongoing  
AM Manni, M.D., Principal Investigator

NIH-R21 "Naltrexone as a Novel Treatment for Diabetic Keratopathy," 2005 - ongoing  
I Zagon, Ph.D., Principal Investigator

NIH-R18 "Impact of Nurse Case Management on Diabetes Co-Morbidity," 2005-ongoing  
R Gabbay, M.D., Principal Investigator

NIH-R01 "Virus Specific CTL Following T Cell Depleted SCT," 2004-ongoing  
K Lucas, M.D., Principal Investigator

NIH-R01 "Polyamine Involvement in Mammary Carcinogenesis," 1997-2004  
AM Manni, M.D., Principal Investigator

NIH-R01 "Intercellular Communication in Breast Cancer Metastasis," 2002-2005  
H Donahue, Ph.D., Principal Investigator

NIH-R01 "The Economic consequences of Cancer Survival," 1999-2004  
P Short, Ph.D., Principal Investigator

Arthritis Foundation "Development of MRI T2 Mapping of Articular Cartilage for Detection of Early Degeneration," 2000-2005  
(b) (6), M.D., Principal Investigator

NIH-R01 "MRI T2 Mapping of Cartilage for Diagnosis of Early OA," 2002-2004  
TJ Mosher, M.D., Principal Investigator

NIH – FDR "Treatment of Advanced Pancreatic Cancer with Opioid Growth Factor: Phase 2," 2003-2006  
J Smith, M.D., Principal Investigator

World Cancer Research Fund "Food, Nutrition, Physical Activity and the Prevention of Cancer," 2004-2006  
(b) (6), Ph.D., Principal Investigator

### **Invited presentations**

1. In-vitro/in-vivo relationships for oral extended-release drug products, presented at the Biopharmaceutical Applied Statistics Symposium, San Diego, California, December 3, 1996.
2. In-vitro/in-vivo relationships for oral extended-release drug products, presented at the Midwest Biopharmaceutical Statistics Workshop, Muncie, Indiana, May 20, 1997.
3. In-vitro/in-vivo relationships for oral extended-release drug products, presented at the FDA, Rockville, Maryland, June 13, 1997.
4. Assessing the effects of in vitro dissolution variability on in-vitro/in-vivo relationships, presented at the Midwest Biopharmaceutical Statistics Workshop, Muncie, Indiana, May 19, 1998.
5. Ordinal paired comparison data with rater specific information, presented to the Department of Biostatistics and Epidemiology, Columbia University, October 29, 1998.
6. Power considerations for simple and complex designs, presented at the General Clinical Research Center Lecture Series, Penn State University, November 18, 1998.
7. Profile similarity in bioequivalence trials, presented to the Department of Biostatistics and Epidemiology, University of Pennsylvania, November 29, 1999.
8. Development and Implementation of Clinical Trials in the NHLBI Clinical Research Networks: Lessons Learned, presented at the American Academy of Allergy Asthma and Immunology Meeting, Philadelphia Pennsylvania, March 14, 2008.

9. Relationships among clinical outcomes and biomarkers across CARE Network studies: Implications for clinical trials, presented at the American Academy of Allergy Asthma and Immunology Meeting, Philadelphia Pennsylvania, March 16, 2008.

### **Contributed presentations at professional meetings**

1. A comparison of methods that characterize pulses in a time series (MB Brown and RH Kushler co-authors), presented at the Joint Statistical Meetings, San Francisco, California, August 12, 1993.
2. A mixture model for characterizing hormone pulses in a time series (MB Brown co-author), presented at the Joint Statistical Meetings, Toronto, Canada, August 14, 1994.
3. A new method for characterizing hormone pulses in a time series. (MB Brown co-author), presented at the Institute of Mathematical Statistics Meeting, Montreal, Canada, July 13, 1995.
4. In-vitro/in-vivo relationships for oral extended-release drug products (VM Chinchilli co-author), presented at the International Biometric Society (ENAR) Meeting, Memphis, Tennessee, March 26, 1997.
5. An application of methods for ordinal and paired comparison data from a radiology study, presented at the Joint Statistical Meetings, Anaheim, California, August 12, 1997.
6. Profile similarity in bioequivalence trials (VM Chinchilli co-author), presented at the International Biometric Society (ENAR) Meeting, Pittsburgh, Pennsylvania, March 30, 1998.
7. Evaluating dietary validation studies, presented at the International Biometric Society (ENAR) Meeting, Atlanta, Georgia, March 29, 1999.

### **CONSULTING ACTIVITIES**

Data and Safety Monitory Board experience in the following areas:

Bipolar disorder  
Asthma  
Vaccines  
Infectious disease

## **TEACHING ACTIVITIES**

### **Courses**

Department of Statistics, Penn State University

Statistics 597B Introduction to Biomedical Statistics, 3 credits

Winter 1996, 1997, 1998, 1999

Statistics 525 Survival Analysis, 3 credits

Fall 1998

Statistics 509 Clinical Trials, 3 credits

Fall 2004

Department of Public Health Sciences, Penn State University

PHS 520 Principles of Biostatistics, 3 credits

Fall 2005, 2007

PHS 521 Applied Biostatistics, 3 credits

Fall 2000, 2001, 2002, 2003, 2004

Spring 2006, 2007, 2008

PHS 597 Statistical Computing with SAS, 1 credit

Fall 2007

### **Graduate student thesis committees**

(b) (6)

, M.S. Statistics, 1997

, Ph.D. Statistics, 2002

, Ph.D. Statistics, 2002

, Ph.D. Statistics, 2004

, Ph.D. Nutrition, 2006

Ph.D. Civil Engineering, 2006

Ph.D. Nutrition, 2008

Ph.D. candidate Nutrition, 2008 expected

Ph.D. candidate Nursing, 2008 expected

Ph.D. candidate Nutrition, 2008 expected

## **MAJOR SERVICE ACTIVITIES**

### **Peer reviewing**

2000 NIH-NIAMS Special Emphasis Panel: "New Research Registries for the NIAMS"

2002 NIH-NIAMS SEP: "The Placebo Effect in Clinical Practice"

2003 NIH-NIDDK SEP: "Prospective Study of Chronic Kidney Disease in Children"

2004 NIH-NIDDK SEP: "Ancillary Studies to Ongoing NIDDK Liver Disease Trials"

2005 NIH-NIDDK SEP: "Phase I/II Trials of Silymarin for Chronic Liver Diseases"

2006 NIH-NCI SEP: "SPORE in GI Cancer"

2007 NIH-NICHS SEP: "Obstetrical pharmacology Research Network - DCAC"

2008 NIH-ORD SEP: "Rare Diseases Clinical Research Network - DMCC"

**Referee for**

*American Journal of Epidemiology*  
*American Journal of Public Health*  
*Annals of Internal Medicine*  
*Biometrics*  
*Journal of Allergy and Clinical Immunology*  
*Journal of Biopharmaceutical Statistics*  
*Journal of the American Statistical Association*  
*Journal of Thoracic and Cardiovascular Surgery*  
*Statistics in Medicine*  
*Journal of Clinical Outcomes Management*  
*New England Journal of Medicine*  
*Journal of the Society for Clinical Trials*

**National**

Member, NIH-NHLBI “Asthma Phenotypes Task Force” 2004 - ongoing

**University**

Penn State University General Clinical Research Center (GCRC) Advisory Committee:  
1997 – ongoing  
Penn State College of Medicine Institutional Review Board: 1996 - 1999  
Penn State College of Dean’s Feasibility Grant review panel: ad hoc  
Penn State College of 4-diamonds Research Grant review panel: ad hoc

**Department**

Graduate Program Director: 2003 - 2007  
Graduate Education Advisory Committee: 2000 – ongoing  
Chair of Internal Review Committee: 2003